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Predictions of Successful Transition from a Warrior Transition Unit CPT Tracy C. Small, MS, USA

U.S. Army-Baylor University Graduate Program in Healthcare Administration Walter Reed Army Medical Center, Washington, D.C.

25 March 2008

A Graduate Management Project Submitted in Partial Fulfillment of the Requirements for the Degrees of Master of Health and Business Administration

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Abstract

The U.S. Army is creating warrior transition units on every Army installation in the U.S. and overseas. The mission of the Warrior Transition Unit (WTU) is to facilitate the healing process of wounded soldiers. Currently it is unknown what contributes to Soldiers' days until transition from the WTU. The primary aim of this project is to identify factors that predict a successful transition of a Warrior in Transition (WT) from the WTU. A non-experimental design using cross-sectional data from 237 medically boarded U.S. Army Soldiers of the Walter Reed Army Medical Center Warrior Transition Brigade (WTB) from April 1, 2007 – January 31, 2008 was used in the project. De-identifiable data was derived from the Medical Evaluation Board Internal Tracking Tool, electronic Military Personnel Office, Physical Disability Case Processing System, and Medical Operational Data System. Data extracted from these databases included demographics, injury information, medical board processing days, physical disability assessment processing days, and final disposition information. The variables were used as predictor variables. The dependent variable for this project was the number of days a WT is assigned or attached to the WTB. The unit of analysis was considered aggregate organization level data. Multiple regression was used to analyze the data and identify significant predictor variables. Findings suggest age and Physical Disability Assessment process days are significant indicators of days a Warrior in Transition is at the WTB. Findings from this project will provide the WTB command an empirical basis upon which to predict a Soldier's transition from the unit. It will also be beneficial for WTU commanders to know the confounders that hinder a Soldier's progress. These findings can be used as baseline data for future studies, to develop policies related to recently implemented programs, and to justify requests for WTU personnel staffing.

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Disclaimer

The views expressed in this study are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, Walter Reed Army Medical Center, or the U.S. Government.

Statement of Ethical Conduct in Research

The author declares no conflict of interest or financial incentives in any product or service mentioned in this article. The confidentiality of individuals whose data may have been used in this study was protected at all times and under no circumstances will be discussed or released to outside agencies.

Predictions of Successful Transition from a Warrior Transition Unit Introduction

Warrior Transition Units are being created throughout the U.S. Army's military installations to serve as coordinating units for Soldiers injured in Operation Iraqi Freedom (OIF), Operation Enduring Freedom (OEF), and non-combat situations (HQDA, 2007b). The Warrior Transition Unit (WTU) commands currently have no empirical means of predicting which Soldiers transition (exit) from the unit in the fewest number of days. Because of this, it is not known whether WTUs allocate resources, personnel, facilities, and programs in the most efficient manner to benefit the wounded soldiers, or Warriors in Transition (WT). This has the potential to hinder or delay a Soldier's exit from the unit.

Objective

This project will identify factors that can be used to predict what leads to the fewest days needed before a Soldier transitions out of a WTU.

Research Question

What factors predict a Soldier's transition from a WTU?

Hypothesis

The number of days a Soldier needs before transition from the Walter Reed Army Medical Center (WRAMC) Warrior Transition Brigade (WTB) is effected by at least one variable.

Significance

The significance of this project is that is the first project to examine factors related to the prediction of a Soldier's transition from a WTU. Because WRAMC stood up the first WTU and

has a large population of Soldiers assigned to this unit, it presents a unique opportunity to study this topic. The long term goal is to develop a baseline for other WTUs to follow.

Assumptions and Limitations

It is assumed that databases contain quality data. Since secondary data lacks control of input, the researcher using this data must assume it is accurate and quality information.

Secondary data analysis has inherent limitations. For example, the secondary investigator has no control of the data that was entered into the system. Therefore, the quality of the data is not known. Another limitation is that the secondary investigator is constrained by the variables available in the data set. Because of this, the investigator may not be able to fully address the research question of interest.

Literature Review

The United States of America has been involved in twelve military conflicts or wars since 1775, each resulting in numerous deaths and casualties (see table 1). From the Revolutionary War to the Philippine-American War, the majority of deaths were classified as non-battle deaths (see table 1). World War I deaths were a more evenly distributed mix of battle and non-battle deaths. Deaths since World War II, however, were primarily battle deaths. When comparing the number of deaths to the number of wounded, a similar pattern is followed; World War I was the first war to produce more wounds than deaths. The Vietnam War was the first war to see greater than 80% of total casualties as wounded. The Global War On Terrorism (GWOT), however, is surpassing this with a rate of 87% of its casualties wounded, the highest rate of all conflicts.

Table 1. *United States' Major War Casualties, 1775-2007*

	Dea	iths	All Casualties		
Conflict	Battle Deaths	Other Deaths	All Deaths	Wounded	
Revolutionary War	20.35%	54.57%	74.93%	25.07%	
War of 1812	9.32%	72.13%	81.45%	18.55%	
Mexican War	9.18%	68.84%	78.01%	21.99%	
Civil War	18.81%	38.13%	56.94%	43.06%	
War with Spain	7.63%	59.44%	67.07%	32.93%	
Philippine - American War	14.19%	44.67%	58.86%	41.14%	
WWI	16.66%	19.69%	36.35%	63.65%	
WWII	27.07%	10.57%	37.63%	62.37%	
Korean War	23.22%	5.52%	28.74%	71.26%	
Vietnam War	12.74%	2.90%	15.64%	84.36%	
Gulf War	19.47%	19.08%	38.55%	61.45%	
GWOT	9.90%	2.61%	12.51%	87.49%	

Note: Values computed from For the common defense: A military history of the United States of America by Millet, A.R. & Maslowski, P., 1994, New York: The Free Press, p. 653.

With every war, the military has made advances in battlefield treatment and evacuation. For example, during the Civil War wagons were used as ambulances. Penicillin and blood transfusions were used during World War II. Then in Vietnam, the use of aeromedical evacuation substantially expedited evacuation of the wounded to field hospitals. In the country's current conflict, the Global War on Terrorism (GWOT), which includes Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF), enhanced personal protective equipment, evacuation within the "golden hour", and aggressive surgeries have saved the lives of thousands of service members injured during operations in the theatre of conflict. These soldiers may have died in previous wars.

The second order effect of these advances has resulted in thousands of wounded Soldiers being returned to WRAMC and other hospitals for Echelon V care - definitive and restorative

medical care within the continental United States' military and civilian medical facilities.

WRAMC began medical operations in 1909 with an 80-bed inpatient capacity. Over the years, the hospital has expanded and contracted its bed-capacity levels to accommodate the number of wounded military members in need of care during times of conflict. Prior to the start of OIF, WRAMC operated with a bed-capacity of 261, with an average census of 175. At the height of fighting in OEF/OIF in 2005, the average census was 185 filled beds. Currently, WRAMC operates with a bed-capacity of 261 with an average census of 173. Approximately 6,600 service members have been treated at WRAMC during the GWOT, of which greater than 2,330 of these service members were wounded in action (Cassimatis & Calvillo, 2007). Unfortunately, the system for caring for the Wounded Warriors was not prepared for the long-term care or housing these Soldiers require. As a result, WRAMC assigned Soldiers to live in Building 18, an unoccupied off-post lodge.

On February 18, 2007, The Washington Post published an article "Soldiers Face Neglect, Frustration At Army's Top Medical Facility" which exposed numerous deficits in Building 18, outpatient management, and housing of WTs (Priest & Hull, 2007). Warriors in Transitions were managing other Warriors in Transitions, there were too few case managers, families of WTs were not provided any support system, and paperwork submission systems were not working (Priest & Hull, 2007). The public and governmental outcry reached Congress and the President of the United States. WRAMC moved Soldiers out of faulty buildings, hired additional case managers, created the Soldier Family Advocacy Center (SFAC), and plans were initiated for better command and control of the WTs receiving outpatient care at WRAMC. The most significant change was that Medical Holdover for Reserve Component Soldiers and Medical

Hold for Active Duty Soldiers, were replaced by a cadre whose primary purpose is to assist WTs.

This was the precursor to the Warrior Transition Brigade (WTB) at WRAMC.

Warrior Transition Brigade

Due to verbal directive from Army senior leadership, on April 5, 2007, cadre began arriving to operate the WRAMC WTB. Others moved to the area and begin work within the next thirty days. The WTB was activated on April 25, 2007, providing the first higher headquarters command and control designated solely to WTs (Ellis, 2007a). Two days later, the medical holdover company was deactivated and Able Company was activated (Ellis, 2007b). On June 6, 2007, the medical hold company was deactivated and the remaining two companies were activated (Little, 2007). Soldiers were no longer separated by service component as before.

The WTB's mission is "to facilitate the healing process of Warriors in Transition and their families – physically, mentally, and spiritually" (Little, 2007). The basic definition of a Warrior in Transition (WT) "is Medical Holdover, Active Duty Medical Extension, Medical Hold, and any other Active Duty Soldier who requires a Medical Evaluation Board" (HQDA, 2007a).

WTB Command Structure

A WT's recovery at WRAMC is ultimately arranged through direction from the WTB. The WTB contains a commander, an executive officer who is in charge of staff sections controlling personnel, training, and supplies, chaplain, chief primary care manager, chief case manager, and a senior enlisted advisor. Also under the direction of the WTB commander are three company commanders. Each company command has the same staff as the WTB, although in a smaller capacity, six platoon sergeants, and 3 squad leaders per platoon sergeants. Table 2 provides a description of the staffing ratios currently being used by WTB Companies.

Table 2.

Warrior Transition Unit Staffing Ratios

- 1 Company for every 200 WT
- 1 Co Cdr and 1SG for every Company
- 1 XO for every Company with 150 WT
- 1 Platoon Sergeant for every 36 WT
- 1 Squad Leader for every 12 WT
- 1 Nurse Case Manager for every 18 WT (MEDCEN)
- 1 Nurse Case Manager for every 36 WT (MEDDAC)
- 1 Senior Human Resources Specialist for every 200 WT
- 1 Human Resources Specialist for every 200 WT
- 1 Senior Finance Management Specialist for every 200 WT
- 1 Senior Logistics Specialist for every 200 WT
- 1 Logistics Specialist for every 200 WT
- 1 Patient Administration Specialist for every 200 WT
- 1 Medical Evaluation Board Physician for every 200 WT
- 1 Primary Care Manager for every 200 WT
- 1 Social Worker (Family Therapy qualified) for every 100 WT
- (1 to 50 at WRAMC and BAMC)
- 1 Training Specialist for every 200 WT
- 1 Occupational Therapist for every WT Battalion
- 1 Occupational Therapy Technician / Recreation Specialist for every 200 WT

Note: Information obtained from FM 4-XX.X The Warrior Transition Unit: Tactics techniques, and procedures an unpublished field manual by HQDA, June 21, 2007, p. 2-12.

"Triad of Warrior Support"

The new central piece of the WTB's mission is the "Triad of Warrior Support" (see Figure 1). It signifies how the Warrior in Transition, or wounded Soldier, will be closely managed by three people: the Case Manager, Squad Leader, and Primary Care Manager (HQDA, 2007a). After activation of the WTB, the case-manager –to-patient ratio shifted from 1:50 to 1:17 and the squad-leader-to-wounded-soldier ratio shifted from 1:55 to 1:12 (Ellis, 2007a). These three individuals meet weekly to discuss the WT's progress.



Figure 1. Triad of Warrior Support. (obtained from FM 4-XX.X The Warrior Transition Unit: Tactics, techniques, and procedures an unpublished field manual by HQDA, June 21, 2007, p. 2-12.)

The Case Manager is the liaison between the WT and every medical specialty clinic in the hospital (HQDA, 2007a). The case manager arranges all medical appointments for the WT and consolidates them on a weekly schedule provided to the WT. They also serve as a medical educator for the Warrior in Transition. When the WT enters the disposition phase, it is the case manager's responsibility to initiate the physical and medical evaluation boards with the physical evaluation board liaison officer (PEBLO).

The WT's Squad Leader is his/her first line supervisor (HQDA, 2007a). The Squad Leader is primarily responsible for accountability of the WT throughout his or her recovery process. The Squad Leader is also responsible for orienting the WT and their family to WRAMC.

The Primary Care Manager initiates referrals, monitors potential medication interactions, manages and provides pain management, and recommends release from active duty (REFRAD)

or medical evaluation board (MEB) for the WT. Additionally, the primary care manager monitors for signs of substance abuse and assists with narrative summaries for evaluation boards of the WT.

Once a Soldier is evaluated as reaching optimal medical and therapeutic benefit, the soldier's case is reviewed by the Military Medical Retention Board (MMRB). If the MMRB does not believe the soldier is able to perform under his current military occupational specialty (MOS) or be reclassified into another MOS, the soldier then goes before the Medical Evaluation Board (MEB). The MEB determines if his physical limitation allows him to stay on active duty with daily or deployment limitations. If the soldier is able to stay on active duty, he is sent back to the originating unit. If the soldier is not able to stay on active duty, his case is referred to the Physical Evaluation Board (PEB). The PEB recommends the soldier's disability percentage and disposition type. The approving authority is Headquarters, Physical Disability Agency (PDA). There are six disposition categories:

- separated from the service without disability benefits
- returned to duty as fit
- permanent disability retirement
- separation with severance pay if otherwise qualified
- placed on temporary disability retired list
- revert to retired status

Appeals can be made during the MEB and PDA process. Once the soldier has exhausted the appeal process and accepted his board results, he or she receives terminal orders to return to duty or exit the military. The order's separation date will be ninety days from the date they are created (HQDA, 2007c). Soldiers separating the military due to disability reasons will also only

do so between the twentieth and twenty-seventh days of the month in order to ensure their VA benefits begin one month after separation (HQDA, 2007d).

Avedis Donabedian's Quality Assurance model, will be used for this study. Structure primarily focuses on the staffing levels supporting the Warrior in Transition. With the Warrior Transition Brigade, the current amount of support staff since the unit's activation represents the quality assurance model's structure. Process, which includes activities leading to guideline development toward standards of care, includes the condition category, MEB processing days, and PDA processing days. Finally, the outcome in this quality assurance model amounts to the disposition category, percentage of authorized disability, and total number of days in WRAMC WTB. If the structure and process are appropriate, it will be reflected by the fewest number of days in the WRAMC WTB until transition.

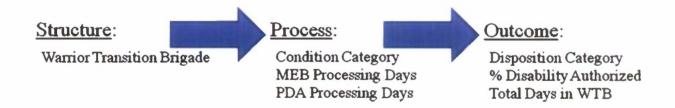


Figure 2. Conceptual Model: Structure, Process, and Outcome of Warrior in Transition assigned to the Warrior Transition Brigade.

Methods

The literature resulted in the alternate hypothesis stating the number of days a Soldier needs before transition from the WRAMC WTB is effected by at least one variable. In statistical notation, this is expressed as H_a : $\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq \beta_6 \neq \beta_7 \neq \beta_8 \neq \beta_9 \neq 0$. Therefore the null hypothesis states there is no difference in variables affecting the number of days a Soldier needs before transition from the WRAMC WTB. In statistical notation, this is expressed as H_0 :

 $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_7 = \beta_8 = \beta_9 = 0$. In both statistical notations, $\beta_1 = \text{Age}$, $\beta_2 = \text{Gender}$, $\beta_3 = \text{Component}$, $\beta_4 = \text{Rank}$, $\beta_5 = \text{MEB Processing Days}$, $\beta_6 = \text{PDA Processing Days}$, $\beta_7 = \text{Disposition Category}$, $\beta_8 = \text{Condition Category}$, $\beta_9 = \text{Percent Disability}$.

A non-experimental cross-sectional descriptive design was tested for this project (X, O). Because this is non-experimental, no control group was used. Therefore, confounding factors will be controlled statistically. The study began with a treatment, X, the WTB activating, and finished with observations of how the organization assisted Warriors in Transition with their transition, O.

Data Analysis

The statistical analysis used includes descriptive statistics and multiple regression.

Multiple regression analysis was used in order to identify factors related to the continuous number of days a WT spends in a WTB. Regression analysis is a methodology which allows for an assessment of the relationship between one dependent variable and multiple independent variables. This methodology also shows the correlation between the numerous independent variables with one another. Although regression may reveal relations among variables, it does not demonstrate causality. Causality is something that can only be determined through manipulation of particular independent variables which therefore unavoidably changes other variables when controlled. Therefore, regression only discloses relationships between the variables tested.

The statistical equation in scientific notation is as follows: $Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4.... + b_9X_9 + \epsilon$, whereas Y is the predictor variable (dependent variable), b_0 is the regression constant (the Y intercept), X_n represents the predictor variables, and ϵ represents random error.

The Statistical Package for Social Scientists Professional Version 16.0 was used to analyze the data.

The dependent variable in this study is the number of days a wounded soldier remains a member of the WTB. This variable is continuous and will be obtained through the Medical Operational Data System (MODS) and the Electronic Military Personnel Office (eMILPO) system. The code sheet shown in Table 3 illustrates the independent variables used in this study.

Table 3.

Code Sheet

Equation Coefficient	SPSS Variable Code	Label	Description	Operationalized	Variable Time	Data Source	Literatur
(1	AGE	Age	What is the soldier's		Continuous	PDCAPS	n/a
. 1	AUL	Age	age at transition?	10-03	Conuncous	IDCAIS	IV a
12	MEB	MEB processing days	# of days the process	0-900	Continuous	MEBITT	AR 40-501
		P 6 7.	took?				(2006)
(3	PDA	PDA processing days	# of days the process	0-400	Continuous	PDCAPS	AR 40-501
			took?				(2006)
K4	DISAB	% Disability	What % of VA	0-100	Continuous	PDCAPS	AR 40-50
			disability was the				(2006)
			soldier awarded?				
X5	GEN	Gender	What gerder is the	0 = Female	Categorical	PDCAPS	n/a
		2 .	soldier?	1 = Male			
X6	GRADE	Grade	What is the soldier's	each grade individually	Categorical	PDCAPS	AR 40-50
	COMPO	0	grade at transition?	A si D t D l l l	0	DD CA DC	(2006)
X7	COMPO	Component	What component is the soldier?	Active Duty Regular Army Active Duty USAR	Categorical	PDCAPS	n/a
			the soldier?	Active Guard / Reserve ARNGUS			
				Active Guard / Reserve USAR			
				ARNGUS - Troop Unit / Active Drilling			
				Member			
				USAR - Individual Ready Reserve			
				Temorary Tour of Active Duty: Guard			
				Temorary Tour of Active Duty: Reserves			
				USAR - Troop Unit / Active Drilling			
				Member			
₹8	COND	Condition Category,	What was the medical		Categorical	PDCAPS	Army
		VA Medical	condition category?	Blood			Regulation
		Diagnostic Codes		Cardiac Injury			40-501
				Eye / Ear Injury			(2006)
				Endocrinology GenitoUrinary Injury			
				Head Trauma			
				Miscellaneous			
				MultiSymptom Disorder			
				Muscle Strain / Injury			
				Nerve Damage			
				Ortho			
				Pysch			
				Pulmonary Injury			
				Spinal Cord Injury			
	PD - G - F			None		DD 0 1 D0	
(9	PDACAT	Disposition Category		Separated from the Service without	Categorical	PDCAPS	Army
			disposition category?	disability benefits Returned to duty as fit			Regulation
				Permanent disability retirement			40-501
				Separation with severance pay if otherwise			(2006)
				qualified			
				decent secon			

Inclusion Exclusion Criteria

The WRAMC WTB activated on April 25, 2007. This study will therefore focus on soldiers whose PEB process was completed between April 1, 2007 and January 31, 2008. From this population, a convenient sample of 237 transitioned soldiers' information was analyzed. Soldiers with missing information in the initial population will be omitted from the convenient sample drawn for analysis.

Sample Size

A 10:1 case to predictor variable ratio was used to determine the appropriate sample size for this regression analysis (Tabachnick & Fidell, 2007).

Power Analysis

Based on power = 0.80, alpha = 0.05 and a medium effect size, a sample of 107 participants will provide enough power to detect significant differences in a regression analysis (Cohen, 1992).

Data

The data obtained was initially screened for missing information. To address missing information, any individual records missing the number of days assigned or attached to the WTB were omitted using a case-wise deletion. The original convenient sample of 332 allowed 237 cases to be analyzed since 95 cases were missing the dependent variable data of days assigned or attached to the WTB. Further screening revealed the distribution of data was positively skewed in the variables of age, PDA processing days, MEB processing days, and percent disability authorized. The variables were not further screened to eliminate outliers since this is the first study to analyze the number of days WTs are assigned or attached to a WTB. For the purpose of

statistical analysis, the 24 WTs with a null disability percentage were given a 0% disability value.

Results

Of this screened convenient sample of 237 Warriors in Transition, the average soldier was an active duty regular army male, 30 years of age, in the rank of E4 or E5, assigned or attached to the WTB for 428.56 days with 172.55 MEB processing days and 46.84 PDA processing days. The predominance of these soldiers were categorized with psychological conditions, receiving an average of 47.22% disability and disposition of temporary disability retired list or permanent disability retirement status.

Individual correlation analysis suggests a relationship between age, MEB processing days, and PDA processing days with the dependent variable, days at WTB at p > .05. Additionally, age has a suggested relationship between MEB processing days and percent disability at p > .05.

Below, Table 4 displays the simple correlations and Table 5 presents the descriptive statistics among the dependent and independent variables.

Table 4 Correlations

		MEB	PDA		Days
		Processing	Processing	Total %	at
	Age	Time	Time	Disability	WTB
Age	1.00		-		
MEB Processing Time	0.174**	1.00			
PDA Processing Time	0.035	-0.037	1.00		
Total % Disability	-0.150*	0.052	0.066	1.00	
Days at WTB	0.359**	0.160*	0.248**	0.058	1.00
<i>Note:</i> $N = 237$: $\alpha = .05$:	* $p < 0.5$	** n < 01			

Table 5

Descriptive Statistics

Variable			Mean	SD	Range	n	%
Dependent							
	Days at WTB		428.56	243.88	9 - 1,165		
Independent			20.1-				
	Age	D	30.17	9.00	20 - 60		
	MEB Process		172.55 46.84	124.91 48.79	4 - 820 2 - 350		
	PDA Processi % Disability	lig Days	47.22		null - 100		
	Gender		47.22	31.07	11011 - 100		
		Female				28	11.80%
		Male				209	88.20%
	Grade						
		E1				3	1.27%
		E2				4	1.69%
		E3				17	7.17%
		E4				84	35.44%
		E5 E6				70	29.54%
		E7				28	11.81%
		E8				3	1.27%
		E9				2	0.84%
		CW2				1	0.42%
		O2				1	0.42%
		O3				11	4.64%
		O4				1	0.42%
		O5				1	0.42%
		06				2	0.84%
	0	O7				1	0.42%
	Component	Active Duty Beguler Army				174	73.42%
		Active Duty Regular Army Active Duty USAR				1/4	0.42%
		Active Guard / Reserve ARNGUS				1	0.42%
		Active Guard / Reserve USAR				2	0.84%
		ARNGUS - Troop Unit / Active Drilling	Member			2	0.84%
		Temorary Tour of Active Duty: Guard				33	13.92%
		Temorary Tour of Active Duty: Reserves				22	9.28%
		USAR - Troop Unit / Active Drilling Mer	mber			2	0.84%
	Condition						
		Amputation				28	11.81%
		Blood				1	0.42%
		Cardiac Injury Eye / Ear Injury				3 14	1.27% 5.91%
		Endocrinology				14	0.42%
		GenitoUrinary Injury				3	1.27%
		Head Trauma				26	10.97%
		Miscellaneous				3	1.27%
		MultiSymptom Disorder				3	1.27%
		Muscle Strain / Injury				19	8.02%
		Nerve Damage				16	6.75%
		Ortho				19	8.02%
		Psychological				72	30.38%
		Pulmonary Injury				6	2.53%
		Spinal Cord Injury None				14 9	5.91% 3.80%
	Disposition	None				9	3.80%
	Disposition	Separated from the service without disabi	lity benefits			8	3.38%
		Returned to duty as fit				8	3.38%
		Permanent disability retirement				86	36.29%
		Separation with severance pay if otherwis	e qualified			37	15.61%
		Placed on temporary disability retired list				98	41.35%

Note: N = 237

The multiple regression analysis tells us the nine variables in this study account for a shared variance of 23% in the full model. From this analysis, it is learned that age and PDA processing days are statistically significant predictor variables on the number of days a WT is at the WTB recovering. Both age and PDA processing days have a probability of less than 0.01 that the influences these variables have are due to chance.

Table 6 displays the unstandardized beta coefficients of each variable in their unit of measurement, the standardized beta coefficients of each variable for the study, and each variable's individual significance. From this information, it can be derived that the WT will be at the WTB 9.212 days per year in age plus 1.178 days per day in the PDA process. For example, a 30 year old WT with 49 days in the PDA process will likely be at the WTB for a minimum of 316 days (30*9.212 + 34*1.178 = 316.412).

Table 6
Coefficients

	Unstandardized	Standardized	
	Coefficients	Coefficients	
	В	Beta	Significance
(Constant)	106.247		0.233
Age	9.212	0.343	0.000**
PDA Processing Days	1.178	0.238	0.000**
Grade	5.845	0.124	0.063
MEB Processing Days	0.211	0.108	0.081
Condition Category	- 8.848	-0.096	0.140
Total % Disability	.471	0.061	0.344
Component	-5.118	-0.059	0.429
Gender	-26.733	-0.036	0.558
Disposition	-3.989	-0.025	0.681

Note: N = 237; $\alpha = .05$; * p < .05; ** p < .01

Discussion

This project examined multiple predictor variables on their ability to forecast the time necessary for a Warrior in Transition to complete the recovery process to exit the WTB. Interestingly, age is one predictor which accounts for nine days per year that a WT remains in the WTB. It can be assumed from this, that the younger the WT, the less days he or she can be expected to remain in the WTB. This study only offers one other predictor to the number of days spent in the WTB, PDA processing days. Unfortunately, this predictor can only be identified toward the end of a WT's recovery. From this, however, it can be concluded that there are other factors prior to the PDA process which can assist in forecasting the number of days a WT is in the WTB.

Recommendations

Findings from this project provide the WTB command an empirical basis upon which to predict a Soldier's transition from the unit. These findings can be used as baseline data for future studies, to develop policies related to recently implemented programs, and to justify requests for WTU personnel when necessary. It is recommended that current WTUs maintain accurate and thorough databases with information that becomes archived and therefore unobtainable in the Electronic Military Personnel System. Variables of this type may include but not be limited to race, marital status upon entry and exit of WTU, level of civilian education, number of dependants, days GWOT deployed, number of OEF/OIF deployments, time in service, and location of family / friends during recovery. Additionally, with the current implementation of community service and work programs, it may also be beneficial to accurately maintain the number of hours contributed per week to these programs. As it is also theorized in the media

that many of these WTs also have substance abuse problems, either past, present, or both, it may be of use to integrate days enrolled in the Army Substance Abuse Program into the research question's variables. Last, the military needs to ensure full support to WT's healing mission. Although regulated that a WT only has one case manager, the military is still a fluid environment with changes in assignments continuing to occur. It may be beneficial to know how many case managers a WT had during his or her recovery process and if these case managers have previous combat experience that they could use to relate to the WTs in their case load.

Conclusion

Age and the number of PDA processing days are the best predictor variables to determine the number of days a WT stays at the WTB. Since these variables show a shared variance of 23%, further studies should be conducted with additional variables to learn what accounts for the additional 77% shared variance is. Since age is a predictor for length of stay in a WTB, WTB's may consider a buddy system that matches WTs of similar ages instead of matching younger and older WTs together during the healing process. Additionally, WTB's should ensure each WT's documentation for their PDA processing is as thorough as possible in order to lessen their number of days in the WTB. Findings from this project provide the WTB command an empirical basis upon which to predict a Soldier's transition from the unit. It is also beneficial for WTU commanders to know the confounders that hinder a Soldier's progress. These findings can be used as baseline data for future studies, to develop policies related to recently implemented programs, and to justify requests for WTU personnel staffing.

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Table 7

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Electronic Military Personnel Office
Global War On Terrorism
Headquarters Department of the Army
Medical Evaluation Board Internal Tracking Tool
Medical Evaluation Board
Military Medical Retention Board
Medical Operational Data System
Operation Enduring Freedom
Operation Iraqi Freedom
Physical Disability Agency
Physical Disability Case Processing System
Physical Evaluation Board
Physical Evaluation Board Liaison Officer
Release From Active Duty
United States
United States Army Reserves
Veteran's Affairs
Walter Reed Army Medical Center
Warrior in Transition
Warrior Transition Brigade
Warrior Transition Unit